

PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q60831

Toshio KOGA

Appln. No.: 09/688,834

Group Art Unit: 3694

Confirmation No.: 1858

Examiner: Susanna M. Meinecke Diaz

Filed: October 17, 2000

For: VEHICLE-ONBOARD ETC APPARATUS

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

Based on the information supplied by the Appellant, and to the best of Appellant's legal representative's knowledge, the real party in interest is the Assignee, Mitsubishi Denki Kabushiki Kaisha.

II. RELATED APPEALS AND INTERFERENCES

Appellant, as well as Appellant's assigns and legal representatives, are unaware of any appeals or interferences which will be directly affected by, or which directly affect or have a bearing on, the Board's decision in the pending case.

III. STATUS OF CLAIMS

Claims 1-7 are all the claims pending in the present application. Claims 1-7 have been finally rejected, and are the subject of this Appeal. The pending claims are set forth in the Appendix.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the final Office Action dated January 5, 2007.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

An exemplary embodiment of the present invention relates to a vehicle-onboard electronic toll collection apparatus. The vehicle-onboard electronic toll collection apparatus (see Fig. 1, 10A) includes: (a) vehicle speed detecting means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system (see Fig. 1, 4A); (b) communication means for exchanging electronic toll collection information for settlement of toll charge/payment transaction with the toll gate station upon passing through the toll gate station (see Fig. 1, 3); (c) measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area (see Fig. 1, 4A); and (d) decision means for making a decision on the basis of the detected vehicle speed and the measured reception field intensity as to a location within the communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at the detected vehicle speed, to thereby allow the communication means to perform communication processing on the basis of result of the decision (see Fig. 1, 4A, page 9). The vehicle-onboard electronic toll collection apparatus includes elements (a)-(d) and the elements (a)-(d) are provided on a vehicle (see Fig. 1, 10A). See, e.g., claim 1.

Another exemplary embodiment of the present invention relates to a vehicle-onboard electronic toll collection apparatus in which the decision means can be designed to convert the distance data to time data based on area entering speed (page 14, line 34 - page 15, line 22).

Yet another exemplary embodiment of the present invention relates to a vehicle-onboard electronic toll collection apparatus that includes voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from the vehicle speed detecting means, for thereby outputting the message in voice (see page 16, line 15 - page 17, line 1). See, e.g., claim 7.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fuyama (U.S. Patent No. 6,259,376), hereinafter referred to as Fuyama '376.
2. Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fuyama '376 in view Fuyama (U.S. Patent No. 6,834,267), hereinafter referred to as Fuyama '267.

VII. ARGUMENT

A. Fuyama '376 does not render claims 1-5 unpatentable.

- A1. Fuyama '376 does not disclose or suggest each and every one of the elements set forth in claim 1.

With respect to independent claim 1, Appellant submits that Fuyama '376 does not disclose or suggest at least:

A. "vehicle speed detecting means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system,"

B. "measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area," and

C. "decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision."

With respect to the vehicle speed detecting means element and its accompanying operations, the Examiner cites Fig. 2 ; the abstract; and col. 4 line 25 through col. 5, line 54 of Fuyama '376, as allegedly satisfying this particular element. These cited portions of Fuyama '376 disclose that a vehicle 35 is judged as an unfair (non-ETC (electronic toll collection)) vehicle or a fair (ETC) vehicle depending on whether a communication link is established when

a second sensor detects the vehicle 35 and if the communication link is established during a pre-determined interval. Further, Fuyama '376 describes that the invention thereof is provided to prevent establishment of a communication link with one vehicle and with a following vehicle at the same time due to two vehicles existing in the same communication area. However, nowhere does Fuyama '376 disclose or suggest a vehicle speed detecting means (which constitutes a part of an electronic toll collection apparatus) for detecting the speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system.

Further, with respect to the features set forth in items B and C above, the Examiner cites the exact same portions of Fuyama '376 again. Accordingly, Appellant submits that Fuyama '376 clearly does not disclose or suggest the features set forth in listed items B and C, as the aspects of Fuyama '376 described in the portions cited by the Examiner (see above) clearly do not relate to the features in listed items B and C above.

Yet further, Appellant submits that nowhere does Fuyama '376 disclose or suggest that a vehicle-on board electronic toll collection apparatus comprises the claim features listed above.

Also, Appellant previously argued that Fuyama '376 does not disclose or suggest at least, "wherein said elements (a)-(d) are provided on a vehicle," as recited in claim 1.

The Examiner previously alleged:

Again, Applicant is reminded that the location of these means does not affect the recited structure or functionality. Additionally, a shift in the location of recited parts is deemed to be obvious in light of prior art teachings addressing the structure and the functionality of the recited parts, as supported *In re Japikse*, 86 USPQ 70, 73.

In response, Appellant submits that the facts of *In re Japikse* are distinguishable from those in the present case because *In re Japikse* involved claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch. The claims were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device. Here, this case involves the constitution of several different elements of a vehicle-onboard electronic toll collection apparatus. The components in Fuyama '376 that allegedly correspond to the claimed elements, as set forth in claim 1, do not constitute a simple rearrangement of parts on a vehicle-onboard electronic toll collection apparatus, and the alleged parts of Fuyama '376 are NOT provided on a vehicle. The alleged corresponding elements in Fuyama '376 appear to be components taken from a highway, street, or various other areas besides a vehicle-onboard electronic toll collection apparatus. Therefore, the result of *In re Japikse* is not applicable here as this case does not involve a simple arrangement of parts on a single apparatus.

Therefore, at least based on the foregoing, as well as the previously submitted arguments, and at least because the applied reference does not disclose or suggest each and every limitation set forth in claim 1, Appellant submits that claim 1 is patentably distinguishable over Fuyama '376.

Appellant submits that dependent claims 2-5 are patentable at least by virtue of their dependencies from independent claim 1.

- A2. Fuyama '376 does not disclose or suggest at least, "wherein said decision means is so designed as to convert the distance data to time data based on area entering speed," as recited in claims 4 and 5.

Further, with respect to claims 4 and 5, Appellant submits that Fuyama '376 does not disclose or suggest converting the distance data to time data based on an area entering speed, as recited in claims 4 and 5. Further, Appellant submits that even if, *arguendo*, a time interval is ultimately derived from a distance measurement, Fuyama '376 only discusses a predetermined interval, therefore Fuyama could not possibly disclose or suggest converting distance data to time data based on an area entering speed. That is, the conversion of the distance data to time data is dynamically based on an area entering speed, whereas the time interval discussed in Fuyama is a predetermined interval.

In response, the Examiner previously alleged:

First, the claimed invention does not specify when the distance data is converted to time data. Second, Fuyama uses the distance data to derive a measurement of a sufficient time interval for establishing a communication link. This determination must be made as a car is approaching the toll area, i.e., such a determination must be made as a car is entering the toll area in order to effect the intensity of the communication signal in time for the car to pay a toll.

In response, Appellant submits that there is no support for the Examiner's conclusion that the time interval determination must be made as a car is approaching a toll area. Fuyama discloses a predetermined interval as discussed above.

B. Neither Fuyama '376 nor Fuyama '267, either alone or in combination renders claims 6 and 7 obvious.

Appellant submits that claims 6 and 7 are patentable at least by virtue of their respective dependencies from independent claim 1. Fuyama '267 does not make up for the deficiencies of Fuyama '376.

Further, with respect to dependent claim 7, the Examiner simply states that speed warnings may be provided using a voice message. However, neither Fuyama '376 nor Fuyama '267 discloses or suggests the specific feature of generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from the vehicle speed detecting means. The Examiner has obviously utilized impermissible hindsight reasoning in concluding that the features of claim 7 are satisfied. The Examiner has not established a *prima facie* case of obviousness with respect to claim 7.

At least based on the foregoing, Appellant submits that the present invention, as recited in claims 6 and 7, is patentably distinguishable over the applied references, either alone or in combination.

Conclusion

In summary, at least based on the foregoing, Appellant submits that the Examiner has not demonstrated that each and every feature of the claimed invention, as set forth in claims 1-7, are taught and/or suggested by the applied references.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: July 3, 2007

CLAIMS APPENDIX

CLAIMS 1-7 ON APPEAL:

1. A vehicle-onboard electronic toll collection apparatus, comprising:

(a) vehicle speed detecting means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system;

(b) communication means for exchanging electronic toll collection information for settlement of toll charge/payment transaction with said toll gate station upon passing through said toll gate station;

(c) measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area; and

(d) decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision,

wherein said vehicle-onboard electronic toll collection apparatus comprises elements (a)-(d), and

wherein said elements (a)-(d) are provided on a vehicle.

2. An vehicle-onboard electronic toll collection apparatus according to claim 1,
wherein said decision means is so designed as to sample distance data which ensure more favorable reception field intensity than the reception field intensity at an entrance location of said communication coverage area on the basis of speed at which said motor vehicle enters said communication coverage area, to thereby generate distance-versus-reception field intensity data.

3. An vehicle-onboard electronic toll collection apparatus according to claim 2,
wherein said decision means is so designed as to determine said distance data which can ensure favorable reception field intensity through statistical processing on the basis of speed at which said motor vehicle enters said communication coverage area.

4. An vehicle-onboard electronic toll collection apparatus according to claim 2,
wherein said decision means is so designed as to convert the distance data to time data based on area entering speed.

5. An vehicle-onboard electronic toll collection apparatus according to claim 3,
wherein said decision means is so designed as to convert the distance data to time data based on area entering speed.

6. An vehicle-onboard electronic toll collection apparatus according to claim 1, further comprising:

image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detecting means.

7. (original): An vehicle-onboard electronic toll collection apparatus according to claim 1, further comprising:

voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice.

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EVIDENCE APPENDIX:

NONE.

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RELATED PROCEEDINGS APPENDIX

NONE.

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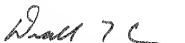
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Sir:

Submitted herewith please find an Appeal Brief. The statutory fee of \$500.00 is being charged to Deposit Account No. 19-4880 via EFS Payment Screen. The USPTO is also directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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